Indiana Department of Education
SUPPORTING STUDENT SUCCESS

# CLASSROOM INNOVATION IN MATHEMATICS GRANT 2010-11

## OVERVIEW

**Purpose:** From 2005 to 2009, state scores in mathematics were stagnant, rising only one percentage point over the four-year span. At the state level, IDOE is currently exploring new, innovative classroom strategies that will help to push mathematics in Indiana forward. One such strategy is the integration of digital curriculum and technology into traditional teaching methodologies.

The purpose of the program is to provide a select number of LEAs with the opportunity to use digital mathematics curricula, technology-based instruction, and interactive white boards in lieu of traditional textbooks. This grant provides an opportunity for LEAs to pilot digital curriculum which can be readily aligned to changes in standards and to determine its effectiveness with their student populations and within their contexts. Following the grant, LEAs will either continue the use of digital curriculum through their textbook rental program or discontinue use of the digital curriculum and seek an alternative for curricular materials. Digital curriculum would need to utilize innovative strategies for instruction and represent a significant break from the traditional textbook-oriented instruction and be approved by the IDOE, but it would not serve as a standalone, online course that replaces the classroom teacher. In order to evaluate the effectiveness of these strategies, awards will be limited to schools that propose plans for either: 6th Grade, 7th Grade, 8th Grade, and/or Algebra I. The results of this pilot program will be used to evaluate the effectiveness of digital curriculum and provide data for schools that may look at adopting digital mathematics curricula in the future.

This grant program is funded through the David C. Ford Fund.

**Application:** Please fill out each part completely. For assistance, you may contact Zach Foughty at zfoughty@doe.in.gov or Phone: (317) 233-5019

## I. GENERAL INFORMATION

| 1. Corp # | 2. Corp Name |
|---|---|
| 6195 | Spencer-Owen Community Schools |

| 3. Corp Address (Street, City, State, Zip) | 4. Telephone |
|---|---|
| 205 East Hillside Ave. Spencer, IN 47460 | (812) 829-2233 |

| 5. Contact Person's Name | 6. Contact Person's Email Address |
|---|---|
| Mr. Brock Beeman | bbeeman@socs.k12.in.us |

| 7. Contact Person's Address (Street, City, State, Zip) | 8. Contact Person's Telephone |
|---|---|
| 205 East Hillside Ave. Spencer, IN 47460 | (812) 829-2233 |

| 9. Superintendent's Name | 10. Superintendent's Email Address |
|---|---|
| Mr. Greg Linton | glinton@socs.k12.in.us |

| 11. # of Schools Participating | 12. # of Students Being Served | 13. # of Teachers Participating |
|---|---|---|
| 3 | 881 | 12 |

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**II. Project Abstract**
**Briefly describe the proposed project clearly and concisely using the space provided.**

Spencer-Owen Community Schools (SOCS), teachers, administrators and technology staff have worked collaboratively to review student, facility and instructional needs and evaluate several digital curriculum options in an effort to make a well-informed decision. Our decision reflects a focus on increasing student engagement and student performance through the use of technology in the whole group, small group and individual student instructional settings.

To this point, SOCS has followed the pattern of using the traditional instructional methodology, followed by remediation with a similar instructional method, which yielded little in the way of results. This is evidenced in the following downward trending on ISTEP+ performance seen locally.

| *Grade* | *Fall 2007 ISTEP+ Math (SOCS % Passing compared to State Average)* | *Spring 2009 ISTEP+ Math (SOCS % Passing compared to State Average)* |
|---|---|---|
| 6th (Spencer Elementary School) | 91%<br>(10% above state average) | 71%<br>(3% below state average) |
| 7th | 77%<br>(3% below state average) | 65%<br>(4% below state average) |
| 8th | 68%<br>(7% below state average) | 59%<br>(9% below state average) |

An additional concern is that during the current school year, one out of every three students enrolled in Algebra I at Owen Valley High School are taking it for the second time. This is a startling number of students and points to concerns over our core instruction, curriculum format, gaps in instruction, curricular alignment, and possible lack of fidelity in implementation.

We believe that the resources and training outlined in this project will support a systematic framework for addressing our needs, whether they be remediation for students that are deficit in grade level appropriate skills, tier I instruction, or enrichment opportunities for students that are above grade level. Our overarching goal in the selection of these digital resources was to create a balance between whole class instruction on new skills, re-enforcement of skills in a small group setting and remediation or additional practice on deficit skills or gaps in instructional sequence through an individualized learning plan facilitated through a one-on-one computer assisted instruction sequence.

Because of these factors, we chose to implement *Compass Learning's Odyssey Math*. *Odyssey Math* offers a balance of computational and procedural skills, conceptual understanding, and problem solving across the curriculum to prepare students for higher-level math. The program's research-based pedagogy ensures that students are provided with clear examples and focused activities that move from the simple to the complex and from the concrete to the abstract in a manner that provides scaffolded support to the learner.

Additional digital resources that will be utilized in our instruction include the *Promethean* interactive white board and *Promethean Planet* website and *ActiveInspire* software, *Acuity*-Assignable Instructional Resources component, along with other web-based and peripheral devices. Web 2.0 options will also be explored. Additional computer lab access and infrastructure will be created through this grant in order to support the delivery of curriculum as well as online administration of ISTEP+, Acuity and ECA assessments.

**GOALS and OBJECTIVES**

All 7th and 8th grade students, Algebra students and Spencer Elementary School 6th grade students will use a digital format and online resources to learn and master mathematics skills. Implementing this format will require a framework of training, ongoing support and program evaluation. The outcome goals and objectives below address this framework as well as increased expectations for student performance. A detailed professional development plan that supports these goals and objectives is included in this application.

***Goal 1: Increase the percentage of Spencer-Owen Community Schools (SOCS) students demonstrating proficiency on grade level or Algebra I standards.***

**Objective 1a**: The percentage of Spencer Elementary School 6th grade students passing the math section of the spring 2011 ISTEP+ will increase by 3% or be in line with the state average.

**Objective 1b**: The percentage of 7th grade students in SOCS passing the math section of the spring 2011 ISTEP+ will increase by at least 4% or be in line with the state average.

**Objective 1c**: The percentage of 8th grade students in SOCS passing the math section of the spring 2011 ISTEP+ will increase by 9% or be in line with the state average.

**Objective 1d**: Increase the percentage of students passing the Algebra I ECA during their first year.

**Objective 1e**: Decrease the percentage of SOCS students required to retake Algebra I during the 2011-2012 school year.

***Goal 2: All mathematics students in participating schools will demonstrate increased engagement in classroom learning thru participation in technology-rich, interactive classrooms.***

**Objective 2a**: All SOCS math teachers in participating schools will complete the LoTi survey as a baseline for their current level of teaching innovation/student engagement.

**Objective 2b**: All SOCS math teachers in participating schools will participate in the 3 full day summer trainings covering strategies for the effective use of the *Odyssey Math* Digital Curriculum, *Promethean* Interactive Smart Boards, *Promethean Planet* website, Active Inspire digital tools.

**Objective 2c**: All SOCS math teachers in participating schools will attend a minimum of 2 after-school mini-tech trainings covering such topics as using digital cameras, engaging students thru multimedia, using PowerPoint in daily instruction, using student input devices, using whiteboards, getting started with WIKI's, blogs, and other online collaboration tools, etc.

**Objective 2d**: Building Administrators will be trained on and use the *LoTi Observer* during classroom walk-throughs to provide feedback to teachers on their level of technology integration and will provide opportunities for collaboration with other teachers to discuss instructional practices.

**Objective 2e**: All SOCS math teachers in participating schools will have increased a minimum of 2 levels or moved up to a level 4a on the LoTi scale as measured on the LoTi outcome data survey in May 2011.

**Please complete <u>one</u> grant narrative for your LEA which includes all schools. Narratives should be double spaced, 12pt Times New Roman font, and not to exceed 10 pages.**

## III. GRANT NARRATIVE

***Software Choice and Rationale*: Identify the digital content program you have selected. Describe how this program aligns with the purpose of the grant. Describe how this program will address the instructional needs of your students and teachers.**

Indiana has demonstrated through the Growth Model the expectation that students acquire one year's growth on mastery of mathematics skills during one year's time. It stands to reason that students currently falling below grade level in mastery of mathematics skills must acquire more than one year's growth in order to "catch up" to their grade level peers. In order to gain more than one year's growth during one year's time, educators must be able to isolate specific skill deficits for these students and remediate accordingly. Existing traditional curriculum formats offer limited resources for skill specific individualized student remediation. The opportunity to support individualized learning plans through a digital format is a vital component to eliminating gaps in student knowledge and providing a stabile foundation.

The mainstay of our digital curriculum selection is *Compass Learning's Odyssey Math*. *Odyssey Math* readily supports an individualized learning path for use with a computer assisted instruction format as well as whole class and small group interactive instruction via the *Promethean* whiteboard. *Odyssey Math* can be utilized on an individualized basis to deliver interventions and enrichment opportunities for students. The pedagogy has been research-based through the University of Oregon/Instructional Research Group. It offers students and teachers clear examples that employ a systematic instructional sequence that is interactive and engaging and provides targeted instruction on specific skills and concepts at the appropriate grade level. In addition, SOCS teachers have already started to identify how *Odyssey Math* could be used in their instruction.

- It is easily correlated to curriculum guides.

- Spiraled lessons with Tier I, II, III (students get additional support as needed-individualized)
- Virtual manipulatives for students and teachers to use in all settings.
- The writing utility supports written student responses similar to ISTEP+ format.
- The lessons and activities can be printed if Internet access is not available in student homes.
- Using the single-management system, students maintain their progress from session to session.
- Repetitive skill practice used with computers provides many opportunities for mastery.
- Differentiated instruction could be administered to all students at once in the lab setting.
- Whole group instruction: Teachers could utilize the videos to introduce concepts.
- Small group instruction: Feedback is given to the teacher to see what skills/areas need to be addressed. Small groups could be formed using this data.
- Individualized instruction: This program affords simultaneous enrichment and remediation.

Both formative and summative assessment and feedback are strengths of the *Odyssey Math* program. Instant feedback to students and teachers helps guide the learning process. Teachers receive information about critical skill mastery and can monitor student growth toward goals. Teachers and administrators receive ongoing information about student performance through their management and reporting system. Instructional adjustments can be made as necessary at the teacher's discretion. Reports are available in real-time and can be viewed on an individual or aggregate level. Reports can be grouped by class, grade, school and multiple schools as well as disaggregated by demographic subgroup or RTI instructional tier. Subgroups can be set up by the user.

Odyssey Math will be supportive of sustaining an RTI framework. Embedded electronic quizzes will support progress monitoring as well as benchmark assessments. Students who demonstrate mastery have the opportunity to scaffold more information through continued individual or small group instruction. Teachers are also alerted by the program when students demonstrate a deficit skill. Teachers can choose to continue with more individual practice on the content, work with the student in

a small group setting, or allow the student to proceed. This framework allows teachers the flexibility to monitor individual practice while providing opportunities for small group intervention or enrichment opportunities in the same setting.

In order to design a more balanced curriculum and support the potential for deployment at a level much greater than 80%, we will partner *Odyssey Math* with the following digital content and resources. In addition to the methods listed previously, these resources will be implemented at the student and classroom levels to support teachers and students using the following methodology:

- *Odyssey Math* - to deliver whole class or small group instruction via the *Promethean* interactive whiteboard installed in each math classroom through this grant.
- *Odyssey Math* -Individualized Instructional Path component in the dedicated math computer lab supported through this grant to afford students practice opportunities, progress monitoring or assessment opportunities, and remediation on specific deficit skills as well as enrichment.
- *Odyssey Math* - Individualized Instructional Path component on the 4-5 workstations in each math class to afford students practice opportunities, progress monitoring or assessment opportunities, and remediation on specific deficit skills or enrichment. This individualized instruction can run simultaneously with whole group instruction through the use of student headphones.
- *Acuity*- Assignable Instructional Resources component to re-teach students deficit skills or enrichment opportunities in the computer lab setting or on the machines in each classroom. Benchmark assessment component provides ongoing information about individual student growth.
- *Promethean* interactive whiteboard and *Promethean Planet* website- to download over 800 lessons that can be indexed to the 6th -8th grade Indiana State Math Standards as well as 112 lessons specifically focused on Algebra. These lessons are ready for use on the interactive white board. Additionally, there are approximately 20,000 downloadable teacher resources on this site that would be available to SOCS teachers.
- *Promethean* interactive whiteboard and *Promethean Planet* website- to create customized lessons by downloading resources from the *Math Collections* and *Algebra* sections of the *Promethean Planet* website. These resources include, audio, video, graphics, grids and graphs files for illustrations in the classroom.
- *Promethean* interactive whiteboard and *Promethean Planet* website and *ActiveInspire* software- to access 15,000 virtual manipulative and resources for use during instruction.

- *Promethean* Smart Board- to access the ACT and SAT prep portions of the *Premium High School Math* software (included with the *Promethean* interactive whiteboard), to support both enrichment and review opportunities for students as applicable.

- Web-based and peripheral devices-Use of other various supporting technologies focused on increasing student engagement that are accessed via the internet in a whole class, lab, small group or individual setting.

***Professional Development*: Describe the PD needs of your teacher for using interactive whiteboards and implementing digital curriculum and detail the specific plan for meeting those needs.**

SOCS is committed to providing continuous PD opportunities that support the integration of a digital curriculum. The SOCS Curriculum Director and building Principals are primarily responsible for the implementation and success of this project. They will work collectively with the facilitators listed below to ensure that PD remains focused on increasing student engagement through the use of technology.

Math teachers will receive training on how to effectively use digital tools and resources to provide instruction, promote higher order thinking, increase student engagement, and authentically assess students in their classroom. These teachers have taken the LoTi survey as a baseline for goal setting and will take it again to measure their growth at the end of next year. They will be enrolled in The Learning Connection, offered training in online PLCs, and have the opportunity to attend bi-weekly trainings covering technology integration topics that are shown as needs through these initial LoTi survey results.

The professional development plan has been outlined in the timeline below and has been differentiated to support teachers at all LoTi. Initial trainings and support for *Compass Learning/Odyssey Math* and the *Promethean* interactive whiteboard will occur during the summer to allow as much practice time as possible for teachers prior to the beginning of the school year.

**Summer/2010**
**Participants:** Teachers and Administrators
**PD Format/LoTi Levels Targeted:** Half-day in-house training

- Initial short introduction class on basic use of the *Promethean* Interactive White Board. / LoTi

Level 2+

- Development of *SOCS Digital Math Curriculum Learning Connection* community for participants

**Facilitator:** Empower-Learning/Dave Tutton, SOCS Curriculum Director/Brock Beeman
**Professional Development Learning Goals/Content:**

- The basics of using the interactive white board.
- This will be followed by an opportunity for discussion and review of the implementation process and professional development timeline. Adjustments will be made as necessary.
- Remaining time will be used by teachers to explore this resource and begin brainstorming ideas for utilizing this tool to increase student engagement.
- Participants will join a Learning Connection community in order to support ongoing SOCS teacher collaboration of ideas and resources throughout the year. Sharing of resources and ideas in this format also supports the potential for cross-district collaborative communities working on common projects.
- Teachers learn about LoTi, complete baseline survey and set personal goal for what level they would like to be at by the end of this project.

**Additional Roles and Responsibilities for Supporting this P.D. Opportunity:**
Curriculum Director-Order equipment, contract services with provider and schedule training. Communicate P.D. schedule to teachers, administrators and technology department.
Technology Coordinator-Ensure that interactive whiteboards and peripheral devices are set up and available for training as well as set up and ready to use in each math classroom.
Building Administrator-Work with Curriculum Director and Technology Coordinator to support the set-up and installation of equipment and materials in classrooms.

**Summer/2010**
**Participants:** Teachers and Administrators
**PD Format/LoTi Levels Targeted:** Full-day training.

- In-depth training on using the *Promethean* Interactive White Board and resources to customize lessons and increase student engagement. / LoTi Level 2+

**Facilitator:** Empower-Learning/Sherri Shelton, SOCS Curriculum Director/Brock Beeman
**Professional Development Learning Goals/Content:**

- How to access the *Promethean Planet* website and download over 800 lessons that can be indexed to the $6^{th}$-$8^{th}$ grade Indiana State Math Standards as well as 112 lessons on Algebra. Lessons are ready for use on the interactive white board.
- How to use the *Promethean* interactive whiteboard to create customized lessons by downloading resources from the *Math Collections* and *Algebra* sections of the *Promethean Planet* website. These resources include, audio, video, graphics, grids and graphs files for illustrations in the classroom.

- How to use the *ActiveInspire* software (included with the Promethean interactive whiteboard), in order to access 15,000 virtual manipulative and resources for use during instruction.

- How to use the ACT and SAT prep portions of the *Premium High School Math* software (included with the *Promethean* interactive whiteboard), to support both enrichment and review opportunities for students.

**Additional Roles and Responsibilities for Supporting this P.D. Opportunity:**
Curriculum Director-Order equipment, contract services with provider and schedule training. Communicate P.D. schedule to teachers, administrators and technology department.
Technology Coordinator-Ensure that interactive whiteboards and peripheral devices are set up and available for training as well as set up and ready to use in each math classroom.
Building Administrator-Work with Curriculum Director and Technology Coordinator to support the set-up and installation of equipment and materials in classrooms.

**Summer/2010**
**Participants:** Teachers and Administrators
**PD Format/LoTi Levels Targeted:** Half-day in-house training.

- Initial short introduction class on basic use of the *Odyssey Math* digital curriculum/LoTi Level 2

**Facilitator:** Compass Learning consultant, SOCS Curriculum Director/Brock Beeman
**Professional Development Learning Goals/Content:**

- The basics of using the *Odyssey Math* digital curriculum for effective whole class, small group and individual student instruction in the classroom.
    - Focus will be placed on methods for increasing student engagement through the implementation of this curriculum in conjunction with the *Promethean* interactive whiteboard.

- Whole class-Teachers will learn how to support whole class instruction by setting up classes, accessing resources that align with lesson plans and using virtual manipulatives. In addition, teachers will learn how to search and download lessons correlated to specific Indiana math standards.

- Individualized-Teachers will learn how to use standards-aligned pre-tests to determine individual student strengths and weaknesses, develop individualized leaning paths and navigate Odyssey's digital management system.

- Remaining time will be used by teachers to explore this resource and begin brainstorming ideas for utilizing them to increase student engagement.

**Additional Roles and Responsibilities for Supporting this P.D. Opportunity:**
Curriculum Director- Contract services with provider and schedule training. Communicate P.D. schedule to teachers, administrators and technology department.
Technology Coordinator-Ensure that network, computers and peripheral devices meet the system requirements for use with *Odyssey Math.*
Building Administrator-Work with Curriculum Director and Technology Coordinator to support the set-

up and installation of equipment and materials in classrooms.

**8/2010-5/2011**
**Participants:** Teachers
**PD Format/LoTi Levels Targeted:** Ongoing, embedded webinar series and implementation support resources / LoTi level 2+ semester I, level 3-4b semester II
**Facilitator:** Math teachers and Administrator
**Professional Development Learning Goals/Content:**

- Video training modules have been developed as a means of supporting teachers with tutorial sessions on the major components of the curriculum implementation process for *Compass Learning* products.
- Online access to printable user guides are available for access
- Text-based animated tutorials are available online on a variety of common teacher tasks related to curriculum implementation

**Additional Roles and Responsibilities for Supporting this P.D. Opportunity:**
Building Administrator-Communicate with teachers and Curriculum Director to assess professional development needs and make arrangements for support through available online resources as appropriate.

**9/2010**
**Participants:** 6th-8th grade Math and Algebra I teachers and Administrators
**PD Format/LoTi Levels Targeted:** Half-day in-house training on use of Acuity
**Facilitator:** Linda Usher/Acuity or SOCS Curriculum Director/Brock Beeman
**Professional Development Learning Goals/Content:**

- Teachers will learn how to navigate the teacher interface and how to administer *Acuity* as a benchmark assessment.
- Teachers will learn how to develop and administer customized progress monitoring assessments.
- Training on interpreting class data, evaluating student results, and assigning instructional resources.

**Additional Roles and Responsibilities for Supporting this P.D. Opportunity:**
Curriculum Director- Contract services with provider and schedule training. Communicate P.D. schedule to teachers, administrators and technology department. Verify teacher and student assignments in Acuity. Schedule assessment cycle as directed by IDOE.
Technology Coordinator-Ensure that computer labs and classroom workstations are set up with appropriate updates and server links for Acuity. Upload data files to Acuity.
Building Administrator-Work with Curriculum Director and Technology Coordinator to support the set-up and implementation of Acuity.

**Present - 5/2011**
**Participants:** Teachers and Administrators
**PD Format/LoTi Levels Targeted**: Ongoing: One Hour After School Mini-Tech Training / LoTi Levels 1-4b

**Facilitator:** Carolyn Livingston
**Professional Development Learning Goals/Content:** Biweekly trainings on the use of various supporting technologies focused on increasing student engagement. Participants will be provided with immediate access to the technology being presented during that session. Follow-up collaboration takes place in a Learning Connection community.

- **Lab management strategies**: Network use, saving and shared drives
- **Web 2.0, Collaboration (teacher and student groups)**
  - The Learning Connection, Blogs, Wikis, GoogleDocs, Skype, Online bookmark management, RSS, Podcasting, Images, Tadalist, Trackstar
- **Internet**
  - Browser basics
  - Sites for teacher and student
  - Online templates: Word, Excel, PowerPoint, Microsoft, vertex42, etc.
- **Software** :Windows basics; Office basics: Word, Powerpoint, Excel; Free downloadable software
- **E-mail:** basics, sending/saving attachments, avoiding viruses
- **Hardware:** Scanners, iPods, PDAs, Smartboards, Wireless Routers, External Drives, LCD projectors, Digital cameras (still & video), Document Cameras

**Additional Roles and Responsibilities for Supporting this P.D. Opportunity:**
Curriculum Director- Contract services with provider and schedule training. Communicate P.D. schedule to teachers, administrators and technology department.
Technology Coordinator-Ensure that network, computers and peripheral devices are available for trainings

**5/2011**
**Participants:** Teachers
**PD Format/LoTi Levels Targeted:** - Summative / LoTi: 0-6
**Facilitator:** Technology Dept.
**Professional Development Learning Goals/Content:** Teachers complete the LoTi outcome survey & assess their growth since the beginning of the school year.

***Implementation Plan – Digital Content:*** **Describe your plan for monitoring the implementation of the digital content with fidelity to program guidelines.**

Teachers have been an integral part of this evaluation process and have already started proposing potential issues and solutions. Teachers will continue to identify and monitor issues as they arise and report them to their Principal, Curriculum Director and Technology Coordinator as appropriate. The professional development plan above provides a thorough framework of ongoing training and opportunities for collaboration. In addition, it is an expectation that participating teachers will follow the pattern of benchmark assessment, data analysis, prescribe, practice, monitor.... Following each

benchmark, it is expected that teachers will meet with their department and administration to review data on current implementation and intervention strategies, allocation of available resources and make adjustments as needed. A digital professional learning community will be established through The Learning Connection as a means of supporting ongoing embedded professional development and networking.

Building administrators will be trained on using the LoTi observation tool to monitor LoTi levels and support the professional growth of teachers along the LoTi continuum with this information. Teachers will be supported throughout the year with professional development and training opportunities targeted at using this digital curriculum and technology to increase student engagement (and consequently), their LoTi level. This support framework is expected to help teachers move from an initial anticipated average LoTi level of 2 (Exploration) to 4a (Integration: Mechanical) or 4b (Integration: Routine), by the end of the school year. In addition, the Superintendent and Curriculum Director will observe the use of the digital curriculum in a math class at least once each grading period.

SOCS is committed to using this digital curriculum and resources for greater than 80% of our instruction. Computer access will be supported for individual learning paths and intervention opportunities on a regular basis through the dedicated mathematics computer lab that will be created through this grant in each of the participating buildings. This lab along with the improved network infrastructure will be available on a rotating basis to every math class. Other existing labs will also be employed when available.

In order to support the availability of computer access on a daily basis to students with the greatest need, SOCS will leverage our existing resources to provide 4-5 computer workstations within each math classroom. These will be used to support additional practice and reinforcement of skills through

individualized computer assisted instruction.

The SOCS Curriculum Director is primarily responsible for the implementation of this project. They will work closely with teachers, administrators, technology staff and the providers for *Odyssey Math*, *Acuity*, and *Promethean* interactive whiteboards to ensure that services are supported and professional development is delivered in a timely and logical format.

***Implementation Plan – Interactive Whiteboards:*** **Outline your current inventory of interactive whiteboards, how you can realign current inventory to meet program goals of one interactive whiteboard per classroom mathematics teacher, and what funds you would apply for in order to address these gaps.**

The availability of interactive whiteboards at SOCS is extremely limited. We have a total current inventory of two interactive whiteboards. One of these is dedicated to a discipline outside of mathematics and the other is being used in an increasing capacity throughout one of our elementary schools.

In contrast, the availability of LCD projectors at SOCS is increasing. Using our existing inventory, SOCS will ensure that all classroom mathematics teachers utilizing the digital curriculum have a fully functional LCD projector mounted in their room. This will be connected to their existing computer and the interactive whiteboard supported through this grant in order to deliver the curriculum. Teachers will receive initial and subsequent trainings on using the *Promethean* whiteboard and the accompanying digital interface devices (specifically the slate and *Promethean* Student Response System), to increase student engagement in the classroom. Strategies supported by Robert Marzano's long-term study on the impact of Promethean whiteboards and these supporting interfaces will be demonstrated during these trainings.

***Implementation Plan – Online Assessments:*** **Describe each school's capacity and commitment to administer online ISTEP+ and ECA assessments, as well as Acuity Assessments, both with and without additional lab space that grant funds could provide. Describe how teachers will ensure that students are trained on how to properly complete online assessments.**

SOCS has already started the process of implementing online assessments in the following areas:

ECA – SOCS has previously given this online and is planning to continue support of this format.

Acuity – SOCS has been administering the Acuity Diagnostic Assessment at two of our elementary schools during the current school year. We have been able to learn about and remedy several potential issues related to infrastructure and test administration. In addition, we have been able to better support an RTI framework at the intermediate level in these schools using this data. SOCS has applied to renew our Diagnostic Assessment Grant for Acuity with the IDOE and to expand our implementation to include all four elementary schools, our middle school, and if awarded this grant, Algebra I.

ISTEP+ - SOCS will be administering the online ISTEP+ assessment at Gosport Elementary School next week. This option was selected in order to evaluate the process and prepare for any future infrastructure and administration needs related to online testing in Indiana. Applicable staff have received training on the administration process. At a minimum, during the next school year, SOCS plans to continue our current implementation at Gosport Elementary School, plus expand to include all students in math classes associated with this grant, (grade 6 at Spencer Elementary, all students at Owen Valley Middle School, and secondary students taking Algebra I).

Immediate plans to address the needs identified during these early steps in online testing administration include: Scheduling future trainings for staff new to any online assessment formats, adding 2 T1 lines in July 2010 to increase available bandwidth to support the infrastructure of our network, finalizing plans to move to fiber optic cable within the next year, increasing capacity for test administration with the addition of one computer lab at each of the three schools participating in this grant, and bolstering network infrastructure. In addition, individual student needs continue to be identified during this process and necessary allowable testing accommodations have been made.

## IV. BUDGET

**See program overview for allowable costs. List each expenditure on a separate line.**

**Expenditures Budget**
**(Use a separate line for each expenditure, and add rows as needed)**

| Expenditure Description | Person Responsible | Cost per Unit | Number of Units | COST |
|---|---|---|---|---|
| Digital curriculum subscriptions (Compass Learning/Odyssey Math) | Brock Beeman | $27 | 881 | $23,787 |
| Professional development reimbursements (summer training on digital curriculum) | Brock Beeman and Darla Thomas | $300 | 12 | $3,600 |
| Interactive whiteboard (Promethean AB387 Pro) | Brock Beeman and Norm Warner | $1450 | 12 | $17,400 |
| Interactive whiteboard Installation | Brock Beeman and Norm Warner | $190 | 12 | $2,280 |
| Installation set-up and projector adjustment | Brock Beeman and Norm Warner | $290 | 12 | $3,480 |
| Interactive whiteboard slate interface (ACTIVESLATE50-HUB) | Brock Beeman and Norm Warner | $399 | 12 | $4,788 |
| Interactive whiteboard student response system for increased student engagement, correlation to Acuity, and continuous monitoring of understanding in whole-group setting.-shared between 2 teachers (AE1KIT25AMEU) | Brock Beeman and Norm Warner | $950 | 12 | $11,400 |
| Acuity Algebra set-up fee | Brock Beeman | $4500 (If we don't receive Diag. Assessment Grant.) | 2 (M.S. and H.S.) | $9,000 |
| Cost for Acuity Algebra administration (per student) 8th –12th grade students | Brock Beeman | $8.75 | 361 | $3,158.75 |
| Costs related to online assessment | | | | |
| Computers and monitors for lab ( Dell, Optiplex 745 and 17" monitor ) | Brock Beeman and Norm Warner | $385 | 110 | $42,350 |
| Lab Printer (HP LaserJet 4015) | Brock Beeman and Norm Warner | $1750 | 3 | $5,250 |
| Category 5 wiring | Brock Beeman and Norm Warner | $350 | 3 | $1,050 |
| Wiremold conduit | Brock Beeman and Norm Warner | $360 | 3 | $1,080 |
| HP Switches (two per lab) | Brock Beeman and Norm Warner | $332 | 6 | $1,992 |
| Headphones for use with online assessment, individual learning path and CAI | Brock Beeman and Norm Warner | $6 | 100 | $600 |
| Projector for use in lab setting (Epson E85) | Brock Beeman and Norm Warner | $900 | 3 | $2,700 |
| Lab Furniture | Brock Beeman and Norm Warner | $5,000 | 3 | $15,000 |
| Power pole and installation for lab | Brock Beeman and Norm Warner | $500 | 3 | $1,500 |
| Computer lab set-up (labor) | Brock Beeman and Norm Warner | $700 | 7 | $2,100 |
| Misc. Cables and Wiring for lab installations | Brock Beeman and Norm Warner | $800 | 1 | $800 |
| | | | **Total Funds Requested** | $153,315.75 |

| LOCAL SHARE* | | | | |
|---|---|---|---|---|
| *This is not a requirement for the grant, but it will help us to determine the additional resources need at the local level. | | | | |
| Expenditures Budget<br>(Use a separate line for each expenditure, and add rows as needed) | | | | |
| **Expenditure Description** | **Person Responsible** | **Cost per Unit** | **Number of Units** | **COST** |
| Professional Development (Promethean Interactive Whiteboard IW99) | Brock Beeman | $78.75 | 12 | $945 |
| Sub-days for data meetings and additional training | Brock Beeman | $70 | 36 | $2,520 |
| Additional Costs for Interactive Whiteboard (e.g. installation materials) | Norm Warner | $250 | 12 | $3,000 |
| | | | | |
| | | | | |
| | | | Total Funds Requested | $6,465 |

## V. ASSURANCES

**By checking each box below, you agree to the following assurances:**

- ☑ The LEA assures that Acuity online assessments will be administered to assess student growth during the grant period (e.g. Acuity Predictive or Pre/Post Test; the exact assessments will be determined by the DOE, but will not exceed 3 tests during the school year, excluding ISTEP+ and ECA).
- ☑ The LEA assures that, given favorable results on a statewide level, it will give serious consideration to sustained use of digital curricula in all schools in the LEA until the next textbook adoption cycle (2016-17 school year).
- ☑ The LEA assures that the selected digital curriculum will be implemented, with fidelity, as the core curriculum for all mathematics classrooms (6th Grade, 7th Grade, 8th Grade, and/or Algebra I) at each school that receives grant funds, for the duration of the school year. "With fidelity" implies that districts will take the steps necessary to implement the digital curriculum as outlined by the vendor.
- ☑ The LEA assures that teachers will be provided with professional development necessary to implement digital curriculum with fidelity. Professional development includes, but is not limited to, training on digital curriculum software, integrating interactive whiteboards into a standards-based classroom, and using Acuity assessments to guide instruction.
- ☑ The LEA assures that funds used for interactive whiteboards will remain in mathematics teacher classrooms for the duration of the program. Any realignment of current inventory for these purposes will also remain in effect for the duration.
- ☑ The LEA assures that all 7th and 8th grade students in Algebra I will take the Algebra ECA online.
- ☑ The LEA assures that all students will take the ISTEP+ online, unless the school can demonstrate an inability to test all students online.
- ☑ The LEA assures that all teachers that use digital curriculum will participate in an *anonymous* evaluation of the program to determine its ability to impact teaching methods.
- ☑ The LEA assures that classrooms in which digital curriculum is being used will be available for observation by certain members of the Department of Education, with reasonable notification, to provide for a qualitative analysis of program effectiveness.
- ☑ The LEA assures that all students will complete a survey regarding the effectiveness of the digital curriculum.
- ☑ The LEA assures that all hardware and software implementations will be put in place before the start of the 2010-11 school year and that professional development related to this program will begin before the start of the 2010-11 school year.
- ☑ The LEA agrees to keep such records and to provide such information to the State educational agency, as may be reasonably required for fiscal audit and program evaluation (consistent with the responsibilities of the State educational agency under this part).

## VI. SIGNATURES

List the management team of this grant for each school. Each member of the management team should also sign below. Complete this sheet for *each* school that is included in the district's implementation plan.

School Name: Spencer Elementary Grade Levels: K-6

| | NAME | POSITION | Signature |
|---|---|---|---|
| 1. | Greg Linton | Superintendent | Greg Linton |
| 2. | Brock Beeman | District Math Coordinator | Brock Beeman |
| 3. | Brock Beeman | District Assessment Coordinator | Brock Beeman |
| 4. | Donnie Carver | Principal | Donnie Carver |
| 5. | Betsy Breedlove | Math Department Chair | Betsy Breedlove |

## VI. SIGNATURES

List the management team of this grant for each school. Each member of the management team should also sign below. Complete this sheet for *each* school that is included in the district's implementation plan.

School Name: Owen Valley Middle School Grade Levels: 7-8

| NAME | POSITION | Signature |
|---|---|---|
| 1. Greg Linton | Superintendent | |
| 2. Brock Beeman | District Math Coordinator | |
| 3. Brock Beeman | District Assessment Coordinator | |
| 4. Aaron LaGrange | Principal | |
| 5. Marlane Waite | Math Department Chair | |

## VI. SIGNATURES

List the management team of this grant for each school. Each member of the management team should also sign below. Complete this sheet for *each* school that is included in the district's implementation plan.

School Name: Owen Valley High School Grade Levels: 9-12

| NAME | POSITION | Signature |
|---|---|---|
| 1. Greg Linton | Superintendent | |
| 2. Brock Beeman | District Math Coordinator | |
| 3. Brock Beeman | District Assessment Coordinator | |
| 4. Jeffrey S. Bond | Principal | |
| 5. Jean M. Seger | Math Department Chair | |